University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions

MB1: Dual Eastbound Left-Turn Lanes

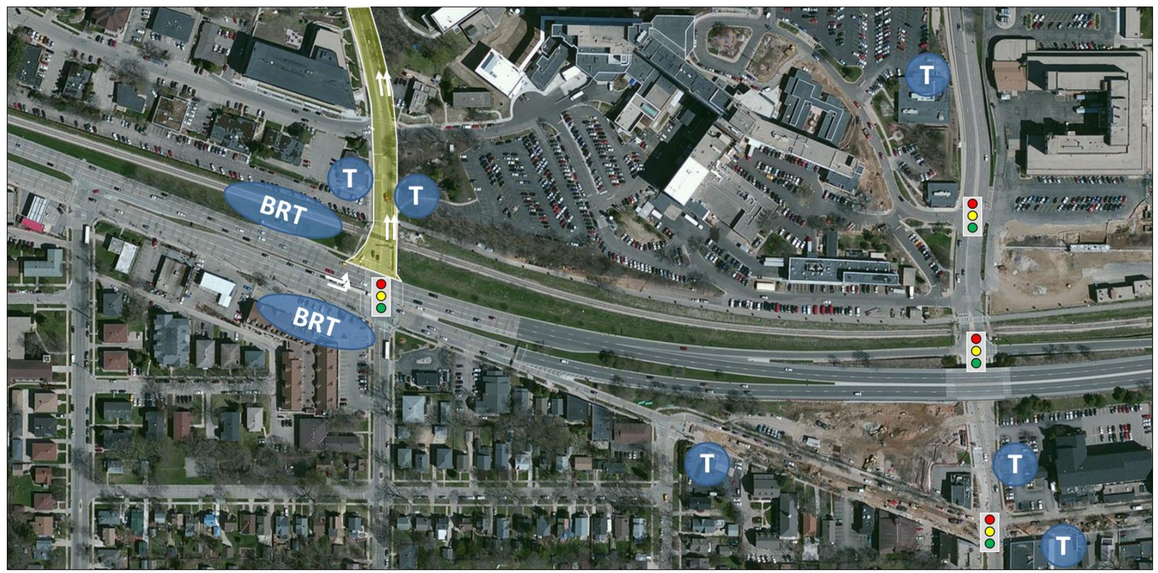


Image Sources: Bing.com, Google.com

Pedestrian	Bicycle	Transit	Motor Vehicles (115% of existing traffic)

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings	Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.	Existing Metro stops:
		• Inbound
		  • West of Farley Ave./ U-Bay Dr.
		  • East of Grand Ave.
		  • East of Highland Ave.
		• Outbound west of Farley Ave./ U-Bay Dr.
		• Northbound
		  • North of Campus Dr. on Farley Ave./ U-Bay Dr.
		  • North of University Ave. on Highland Ave.
		• Southbound
		  • North of Campus Drive on Farley Ave./ U-Bay Dr.
		  • Near VA on Highland Ave.
			• University Ave. & Farley Ave./ U-Bay Dr.
			  • Overall Intersection LOS D (40.6 s/vh)
			  • 1 movement at LOS F
			  • 1 add'l movement approaching LOS F
			• University Ave. & Highland Ave.
			  • Overall Intersection LOS B (16.4 s/vh)
			• Highland Ave. & Westbound Campus Dr.
			  • Overall Intersection LOS C (24.0 s/vh)
			• Highland Ave. & VA Hospital
			  • Overall Intersection LOS B (17.4 s/vh)

Longer crossing distances on west and north legs	Longer crossing distances on west and north legs	Generally compatible with BRT and local service	• University Ave. & Farley Ave./ U-Bay Dr.
			  • Overall Intersection LOS D (38.8 s/vh)
			  • 1 movement at LOS F
			  • 3 add'l movements approaching LOS F
			  • Requires expansion of U-Bay Dr.
			• No changes at remaining signals

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions

MB2: Dual Eastbound Left-Turn Lanes and Southbound Right-Turn Lanes

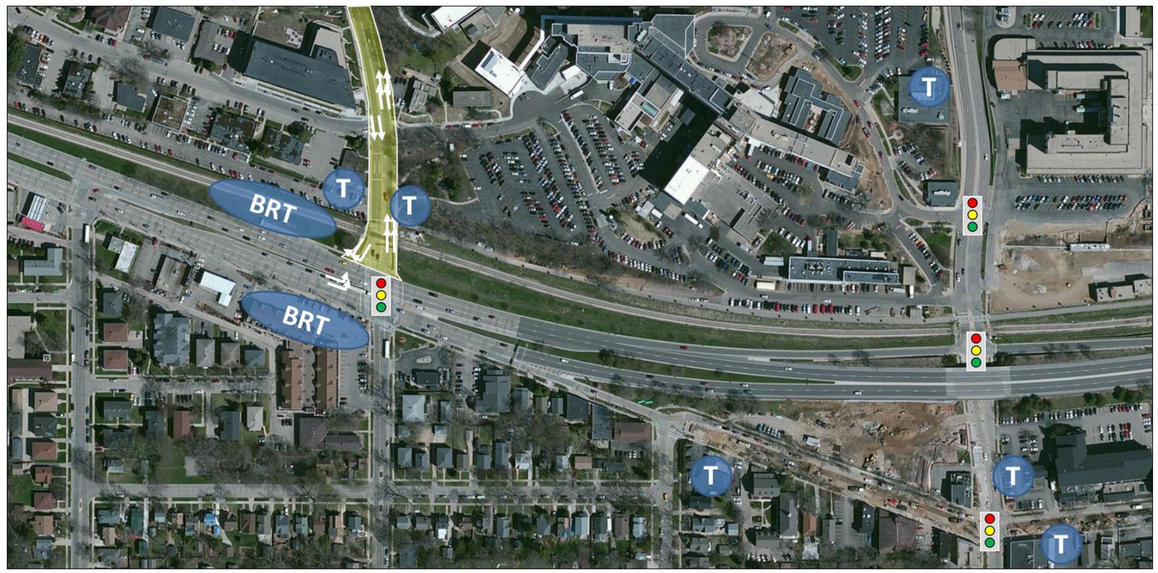


Image Sources: Bing.com, Google.com

Pedestrian	Bicycle	Transit	Motor Vehicles (115% of existing traffic)

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings	Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.	Existing Metro stops:
		• Inbound
		  • West of Farley Ave./ U-Bay Dr.
		  • East of Grand Ave.
		  • East of Highland Ave.
		• Outbound west of Farley Ave./ U-Bay Dr.
		• Northbound
		  • North of Campus Dr. on Farley Ave./ U-Bay Dr.
		  • North of University Ave. on Highland Ave.
		• Southbound
		  • North of Campus Drive on Farley Ave./ U-Bay Dr.
		  • Near VA on Highland Ave.
			• University Ave. & Farley Ave./ U-Bay Dr.
			  • Overall Intersection LOS D (40.6 s/vh)
			  • 1 movement at LOS F
			  • 1 add'l movement approaching LOS F
			• University Ave. & Highland Ave.
			  • Overall Intersection LOS B (16.4 s/vh)
			• Highland Ave. & Westbound Campus Dr.
			  • Overall Intersection LOS C (24.0 s/vh)
			• Highland Ave. & VA Hospital
			  • Overall Intersection LOS B (17.4 s/vh)

Longer crossing distances on west and north legs.	Longer crossing distances on west and north legs.	Generally compatible with BRT and local service	• University Ave. & Farley Ave./ U-Bay Dr.
			  • Overall Intersection LOS C (29.9 s/vh)
			  • Requires expansion of U-Bay Dr.
			• No changes at remaining signals

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions

MB3: Split Tee Intersections with full access to University Bay Drive

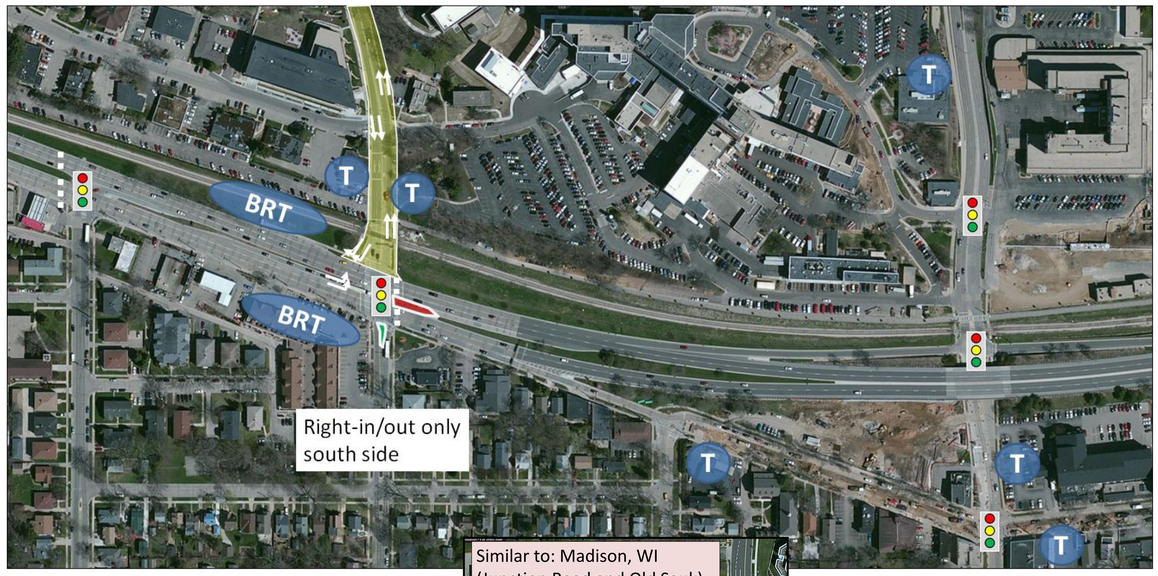


Image Sources: Bing.com, Google.com

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Crossing only on east side of Farley Ave./ U-Bay Dr.
- Two-stage crossing with large refuge possible
- Adds signalized crossing at Franklin Ave. tee intersection pending completion of sidewalk on north side

Bicycle

Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Two stage north-south crossing on east side only

Transit

Existing Metro stops:

- Inbound
  - West of Farley Ave./ U-Bay Dr.
  - East of Grand Ave.
  - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
  - North of Campus Dr. on Farley Ave./ U-Bay Dr.
  - North of University Ave. on Highland Ave.
- Southbound
  - North of Campus Drive on Farley Ave./ U-Bay Dr.
  - Near VA on Highland Ave.

Generally compatible with BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
  - Overall Intersection LOS D (40.6 s/vh)
  - 1 movement at LOS F
  - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
  - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
  - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
  - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
  - Overall Intersection LOS C (24.0 s/vh)
  - Requires expansion of U-Bay Dr.
- University Ave. & Franklin Ave. (south Tee)
  - Overall Intersection LOS A (7.1 s/vh)
- No changes at remaining signals

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions

MB4: 8-Lane Corridor (3 All-Purpose Lanes, 1 Bike/Transit/Right-Turn Lane each direction)

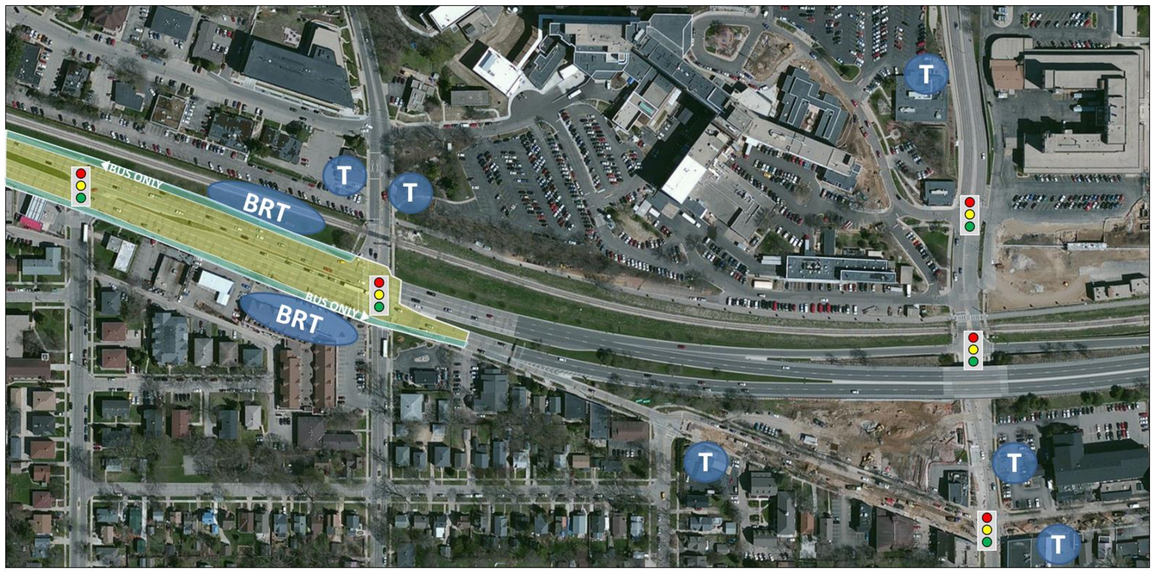


Image Sources: Bing.com, Google.com

Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

- Longer distances to cross
- Little/no terrace along University Avenue for eastbound and westbound pedestrians west of Farley Avenue

Bicycle

Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

- Longer distances to cross
- More lanes to navigate eastbound and westbound west of Farley Avenue
- Wider on-street east-west accommodation, but shared with buses and right turns

Transit

Existing Metro stops:

- Inbound
  - West of Farley Ave./ U-Bay Dr.
  - East of Grand Ave.
  - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
  - North of Campus Dr. on Farley Ave./ U-Bay Dr.
  - North of University Ave. on Highland Ave.
- Southbound
  - North of Campus Drive on Farley Ave./ U-Bay Dr.
  - Near VA on Highland Ave.

Improves travel time and reliability for BRT and local service

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
  - Overall Intersection LOS D (40.6 s/vh)
  - 1 movement at LOS F
  - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
  - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
  - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
  - Overall Intersection LOS B (17.4 s/vh)

- University Ave. & Farley Ave./ U-Bay Dr.
  - Overall Intersection LOS D (40.6 s/vh)
  - 1 movement at LOS F
  - 1 add'l movement approaching LOS F
- No changes at remaining signals

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions

HB1: Modified Diamond Interchange (possible Campus Drive extension)

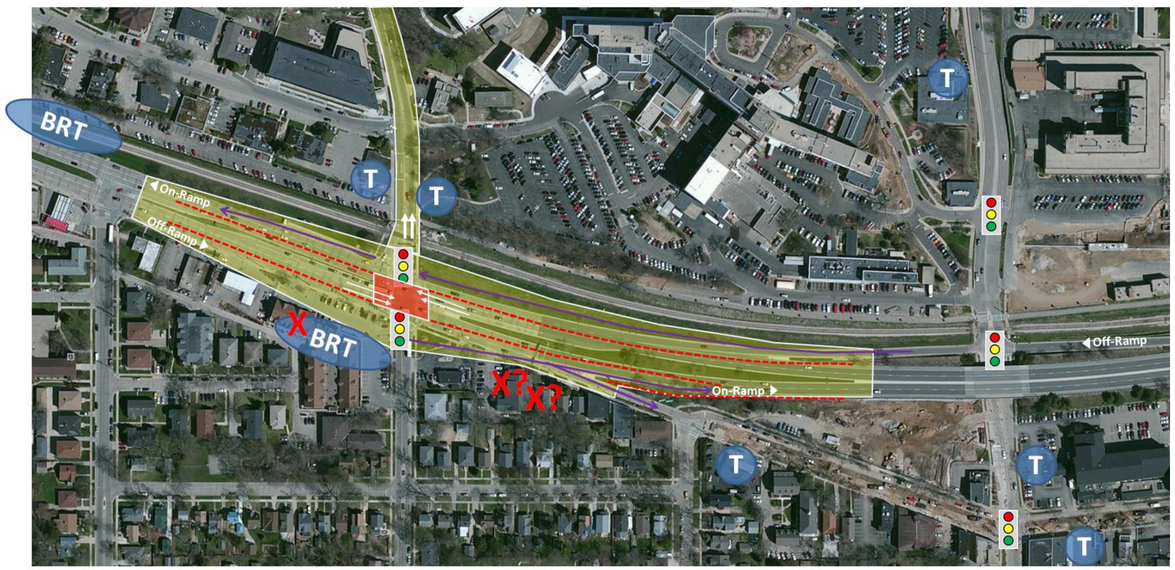


Image Sources: Bing.com, Google.com

Pedestrian	Bicycle	Transit	Motor Vehicles (115% of existing traffic)

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings	Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.	Existing Metro stops:
		• Inbound
		  • West of Farley Ave./ U-Bay Dr.
		  • East of Grand Ave.
		  • East of Highland Ave.
		• Outbound west of Farley Ave./ U-Bay Dr.
		• Northbound
		  • North of Campus Dr. on Farley Ave./ U-Bay Dr.
		  • North of University Ave. on Highland Ave.
		• Southbound
		  • North of Campus Drive on Farley Ave./ U-Bay Dr.
		  • Near VA on Highland Ave.
			• University Ave. & Farley Ave./ U-Bay Dr.
			  • Overall Intersection LOS D (40.6 s/vh)
			  • 1 movement at LOS F
			  • 1 add'l movement approaching LOS F
			• University Ave. & Highland Ave.
			  • Overall Intersection LOS B (16.4 s/vh)
			• Highland Ave. & Westbound Campus Dr.
			  • Overall Intersection LOS C (24.0 s/vh)
			• Highland Ave. & VA Hospital
			  • Overall Intersection LOS B (17.4 s/vh)

• Short crossing lengths and reduced traffic through signals
• Two signalized intersections to cross rather than one
	• Less traffic through signals
	• Two signalized intersections to cross rather than one
		• Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
		• Frequent entering and exiting along the corridor to make stops
			• University Ave. & Westbound Campus Drive Ramps
			  • Overall Intersection LOS C (29.4 s/vh)
			• University Ave. & Eastbound Campus Drive Ramps
			  • Overall Intersection LOS C (26.9 s/vh)
			• No changes at remaining signals.

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions

HB2: Westbound Campus Drive extension only

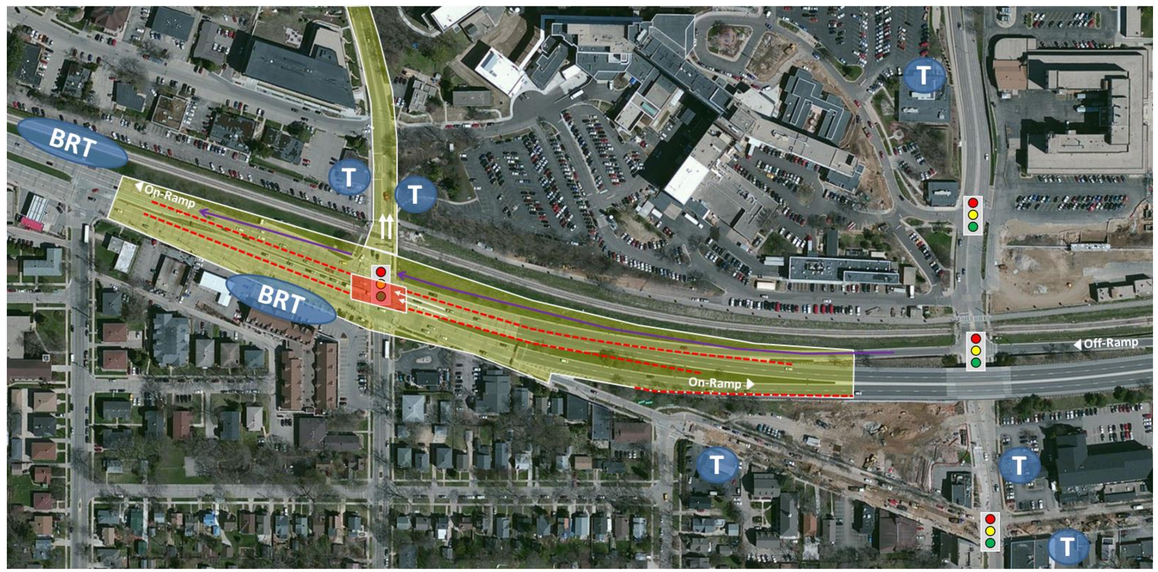


Image Sources: Bing.com, Google.com

	Pedestrian	Bicycle	Transit	Motor Vehicles (115% of existing traffic)

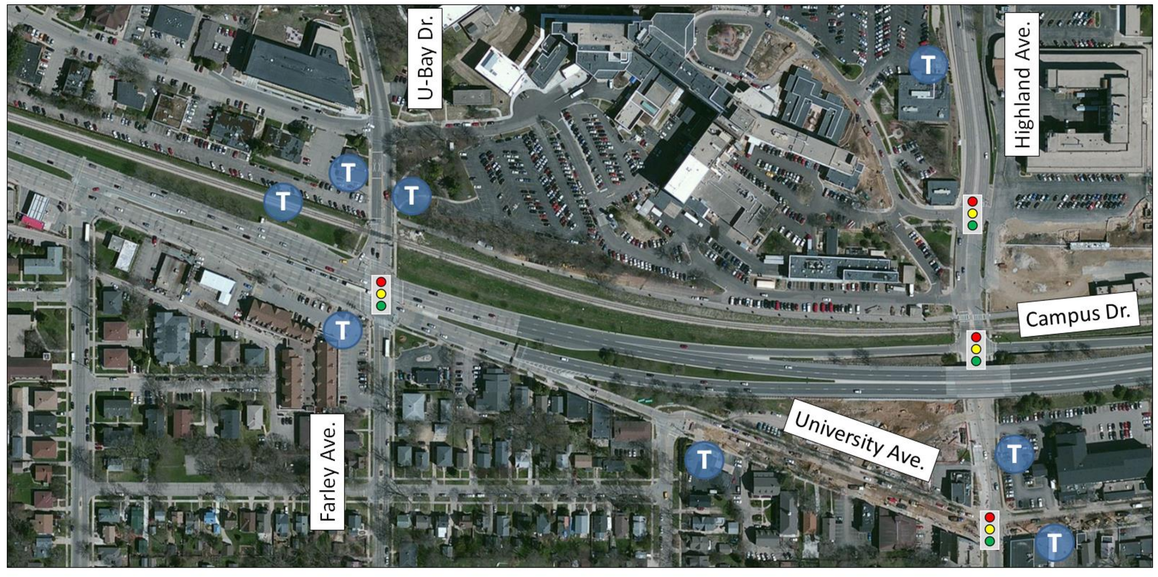
Base Conditions	Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings	Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.	Existing Metro stops:
			• Inbound
			  • West of Farley Ave./ U-Bay Dr.
			  • East of Grand Ave.
			  • East of Highland Ave.
			• Outbound west of Farley Ave./ U-Bay Dr.
			• Northbound
			  • North of Campus Dr. on Farley Ave./ U-Bay Dr.
			  • North of University Ave. on Highland Ave.
			• Southbound
			  • North of Campus Drive on Farley Ave./ U-Bay Dr.
			  • Near VA on Highland Ave.
				• University Ave. & Farley Ave./ U-Bay Dr.
				  • Overall Intersection LOS D (40.6 s/vh)
				  • 1 movement at LOS F
				  • 1 add'l movement approaching LOS F
				• University Ave. & Highland Ave.
				  • Overall Intersection LOS B (16.4 s/vh)
				• Highland Ave. & Westbound Campus Dr.
				  • Overall Intersection LOS C (24.0 s/vh)
				• Highland Ave. & VA Hospital
				  • Overall Intersection LOS B (17.4 s/vh)

HB2: Westbound Campus Drive extension only	• Longer crossing distances to accommodate structure and walls
	• Less traffic through signal
		• Longer crossing distances to accommodate structure and walls
		• Less traffic through signal
			• Less compatible with BRT due to relocation of outbound stop west of on-ramp and potential for weaving traffic
			• Frequent entering and exiting along the corridor to make stops
				• University Ave. & Westbound Campus Drive Ramps
				  • Overall Intersection LOS C (37.3 s/vh)
				  • 2 movements at LOS F
				• No changes at remaining signals.

University Avenue & Farley Avenue/University Bay Drive Area

Scenario

Base Conditions



Pedestrian

Multiple concerns including ped crossings at signalized intersections, lack of sidewalk on Highland Ave., and east-west campus path crossings

Bicycle

Multiple concerns including northbound/ inbound bike access to hospital complexes, east-west campus path crossings, and conditions along University Ave.

Transit

Existing Metro stops:

- Inbound
  - West of Farley Ave./ U-Bay Dr.
  - East of Grand Ave.
  - East of Highland Ave.
- Outbound west of Farley Ave./ U-Bay Dr.
- Northbound
  - North of Campus Dr. on Farley Ave./ U-Bay Dr.
  - North of University Ave. on Highland Ave.
- Southbound
  - North of Campus Drive on Farley Ave./ U-Bay Dr.
  - Near VA on Highland Ave.

Motor Vehicles (115% of existing traffic)

- University Ave. & Farley Ave./ U-Bay Dr.
  - Overall Intersection LOS D (40.6 s/vh)
  - 1 movement at LOS F
  - 1 add'l movement approaching LOS F
- University Ave. & Highland Ave.
  - Overall Intersection LOS B (16.4 s/vh)
- Highland Ave. & Westbound Campus Dr.
  - Overall Intersection LOS C (24.0 s/vh)
- Highland Ave. & VA Hospital
  - Overall Intersection LOS B (17.4 s/vh)

Dismissed Alternatives:

- Providing Bus/Bike/Right-Turn Lane without Expansion
  (Poor operations without significant MV demand reduction)
- Prohibit Eastbound Left at University Bay Drive and reroute traffic to Highland Ave.
  (eastbound traffic fails in the AM peak along Highland)
- Tee Intersection with Full Access to Farley Ave.
  (eastbound traffic fails in the AM peak along Highland)
- Expanded At-Grade Farley Ave./ U-Bay Dr. Intersection with Direct Ramp to UW/VA (Cost prohibitive)

Image Sources: Bing.com, Google.com